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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,488	02/04/2004	Declan Reilly	4481-081	1940

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Kathy Manke
Avago Technologies Limited
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EXAMINER

THOMAS, BRANDI N

ART UNIT	PAPER NUMBER
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2873

NOTIFICATION DATE	DELIVERY MODE
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10/23/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/770,488

Applicant(s)

REILLY ET AL.

Examiner

Brandi N. Thomas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: Detailed Action.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata et al. (2003/0076766 A1).

Regarding claims 1 and 15, Nagata et al. discloses, in figures 6A-6E, a beam splitter apparatus comprising: a first beam splitter mount (21) and a second beam splitter mount (22), the first beam splitter mount (21) being coupled to the second beam splitter mount (22) (figures 6C and 6D) the beam splitter apparatus being arranged so that, in use, a force applied to the second beam splitter mount (22) causes the second beam splitter mount (22) to turn relative to the first beam splitter mount (21) (section 0128) but does not specifically disclose a by a deformable connection between the first and second beam splitter mounts. However, Nagata et al. does disclose the first and second beam splitter mounts joined to each by an optical films (11a and 12a-12c) (section 0128). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use either a deformable connection or the optical films for the purpose of both process of joining the first and second beam splitter mounts perform the same function.

Regarding claim 2, Nagata et al. discloses, in figures 6A-6E, a beam splitter apparatus, wherein the second beam splitter mount (22) is arranged to turn relative to the first beam splitter mount (21) in response to flexing of the deformable connection (section 0128).

Regarding claims 3, 4, 9, 10, 16, and 17, Nagata et al. discloses, in figures 6A-6E, a beam splitter apparatus, wherein the second beam splitter mount (22) is arranged to turn relative to the first beam splitter mount (21) through an angle of ten degrees or less (section 0128).

Regarding claims 5 and 11, Nagata et al. discloses, in figures 6A-6E, a beam splitter apparatus, but does not specifically disclose wherein the beam splitter apparatus comprises a material having a coefficient of thermal expansion of 8ppm/K or less. It would have been obvious to modify the invention to include wherein the beam splitter apparatus comprises a material having a coefficient of thermal expansion of 8ppm/K or less, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125 USPQ 416). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention to include wherein the beam splitter apparatus comprises a material having a coefficient of thermal expansion of 8ppm/K or less for the purpose of maintaining the length of the beam splitter apparatus with regard to temperature.

Regarding claims 6 and 12, Nagata et al. discloses, in figures 6A-6E, a beam splitter apparatus, but does not specifically disclose wherein the beam splitter apparatus comprises Kovar. It would have been obvious to modify the invention to include wherein the beam splitter apparatus comprises Kovar, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125

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USPQ 416). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention to include wherein the beam splitter apparatus comprises Kovar for the purpose of its ability to be compatible with thermal expansion of a structure.

Regarding claims 7, 8, 13, and 14, Nagata et al. discloses, in figures 6A-6E, a beam splitter apparatus, wherein the beam splitter apparatus further comprises a first beam splitter mounted in the first beam splitter mount (21) and a second beam splitter mounted in the second beam splitter mount (22) (section 0128), the beam splitter apparatus, in use, being arranged such that the first beam splitter (beam splitter mounted on mount 21) and the second beam splitter (beam splitter mounted on mount 22) receive optical energy emitted by an optical source (sections 0128-0130).

Regarding claims 18-20, Nagata et al. discloses, in figures 6A-6E, a beam splitter apparatus, wherein the beam splitter deflects another portion of the beam incident on it and is not incident on the beam deflector, further comprising indicating powering the beam incident on the splitter by measuring power in the beam deflected by the splitter (sections 0128-0130 and 0239).

Regarding claim 21, Nagata et al. discloses, in figures 6A-6E, a beam splitter apparatus, wherein the deflector is a second beam splitter (mounted on beam splitter mount (22) (section 0128).

Response to Arguments

3. Applicant's arguments filed 11/13/06 have been fully considered but they are not persuasive. Applicant argues that the use of a deformable connection between first and second beam splitter mounts is not a matter within the knowledge of a person of ordinary skill in the art. However, Nagata et al. does disclose the first and second beam splitter mounts joined to each by an optical films (11a and 12a-12c) (section 0128). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use either a deformable connection or the optical films for the purpose of both process of joining the first and second beam splitter mounts perform the same function. Applicant argues that neither Nagata nor any of the other references of record provide any teaching, whatsoever, of applicants' claimed use of a beam splitter apparatus comprising a material having a coefficient of thermal expansion of 8ppm/K or less. However, it would have been obvious to modify the invention to include wherein the beam splitter apparatus comprises a material having a coefficient of thermal expansion of 8ppm/K or less, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125 USPQ 416). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention to include wherein the beam splitter apparatus comprises a material having a coefficient of thermal expansion of 8ppm/K or less for the purpose of maintaining the length of the beam splitter apparatus with regard to temperature. Changing the material to have a coefficient of thermal expansion of 8ppm/K or less is a matter of design choice.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandi N. Thomas whose telephone number is 571-272-2341. The examiner can normally be reached on Monday - Thursday from 6-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BNT

BNT

Brandi N Thomas
Examiner
Art Unit 2873

Ricky Mack
RICKY MACK
SUPERVISORY PATENT EXAMINER